

Inventor: Toshio DOI et al.

Title: METHODS FOR IDENTIFYING AGENTS FOR PREVENTING  
OR TREATING PROLIFERATIVE DISEASES, AND FOR INHIBITING, etc.  
REPLACEMENT SHEET

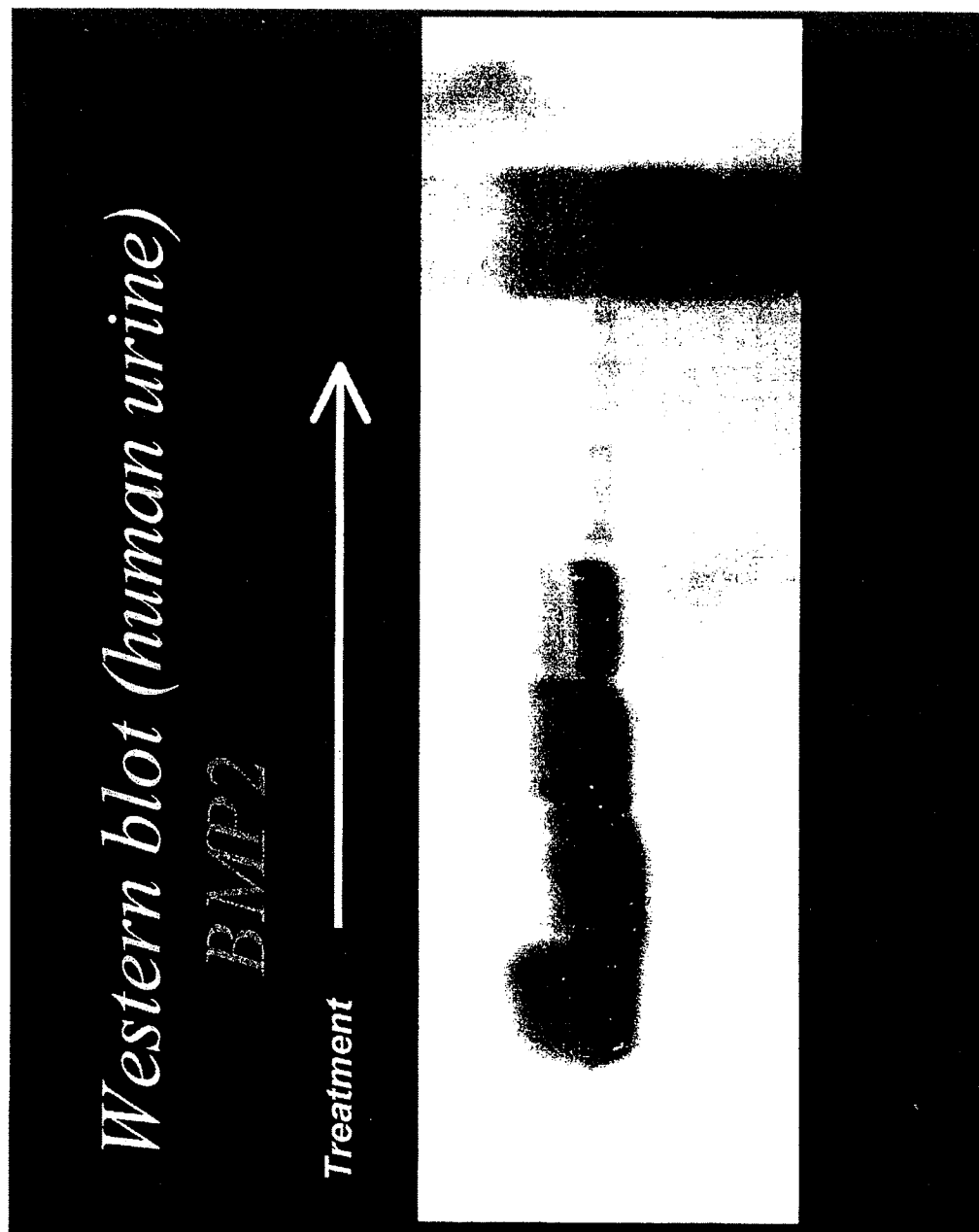
Fig. 5

*Array analysis (AGEs stimulation  
on mMC)*

*AGE/BSA Ratio AGE/BSA(color swap)*

<i>BMP4</i>	21.25	2.32
<i>BMP1</i>	2.06	2.07
<i>SMAD1</i>	1.27	1.22
<i>RAGE</i>	1.15	5.6
<i>TGFbRII</i>	0.49	12.1
<i>TGFbRI</i>	1.15	1.1
<i>ALK3</i>	1.18	1.3
<i>BMPRII</i>	2.06	4.74

Fig. 6



The diagram illustrates the TGF- $\beta$  signaling pathway. On the left, BMPs (Bone Morphogenetic Proteins) and TGF- $\beta$  (Transforming Growth Factor-beta) are shown as ligands. They bind to a heteromeric receptor complex consisting of Type I and Type II receptors. The Type I Receptor (ALK1) is activated, leading to the recruitment of R-Smad (Smad1, Smad5, Smad8) and Co-Smad (Smad2, Smad3). The complex then translocates to the nucleus to regulate transcription factors and the target gene.

Fig. 16

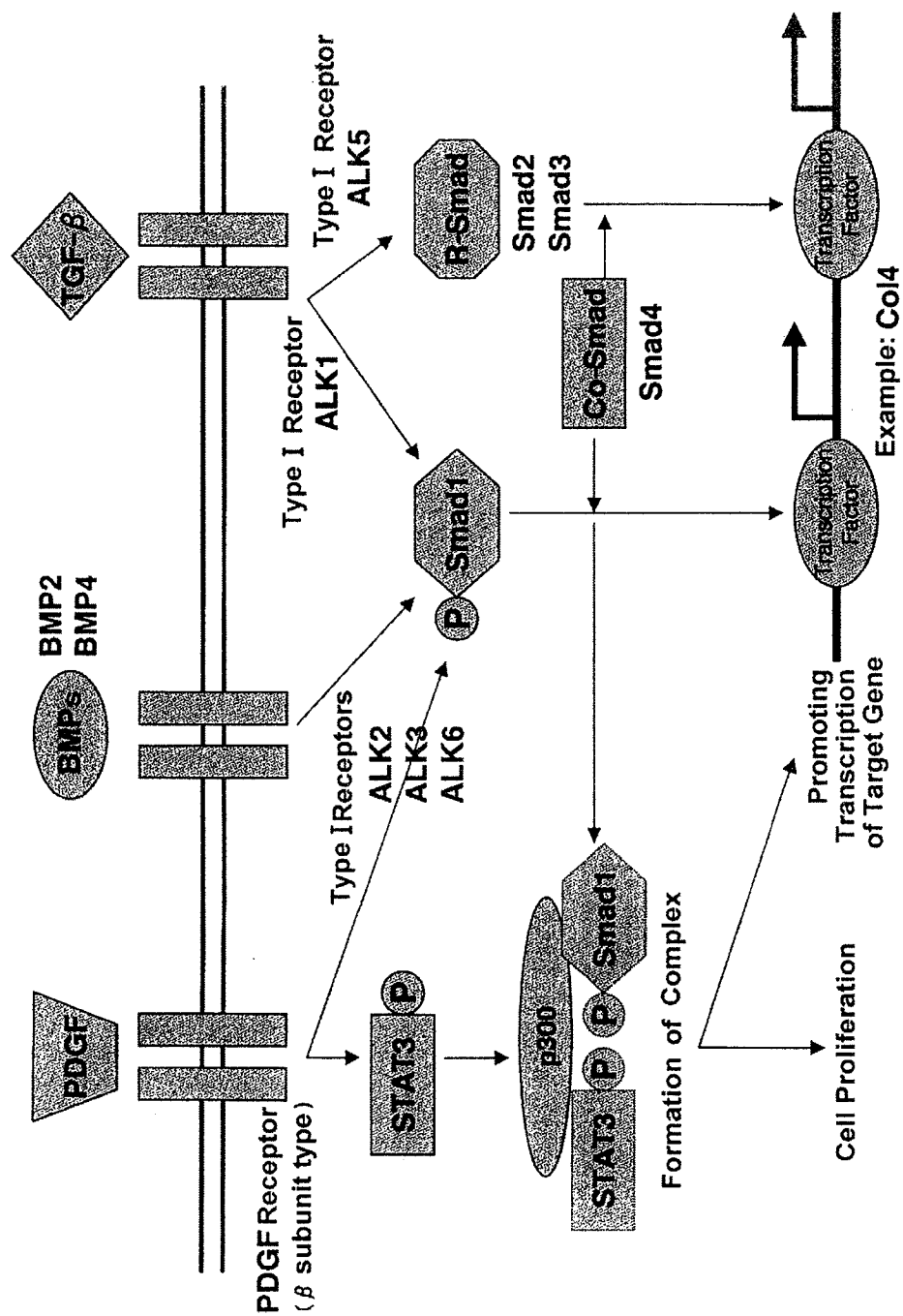


Fig. 17

Western blot (human urine ALK-1)



Lanes 1-5: diabetic nephropathy  
Lane 6: mitochondrial disease in which diabetes is complicated with  
sclerosing, renal proliferative disease  
Lanes 7-8: diabetes + nephritis (without sclerosis)  
Lanes 9-1: normal

Fig. 18

# Western blot (human urine ALK-1)

Treatment

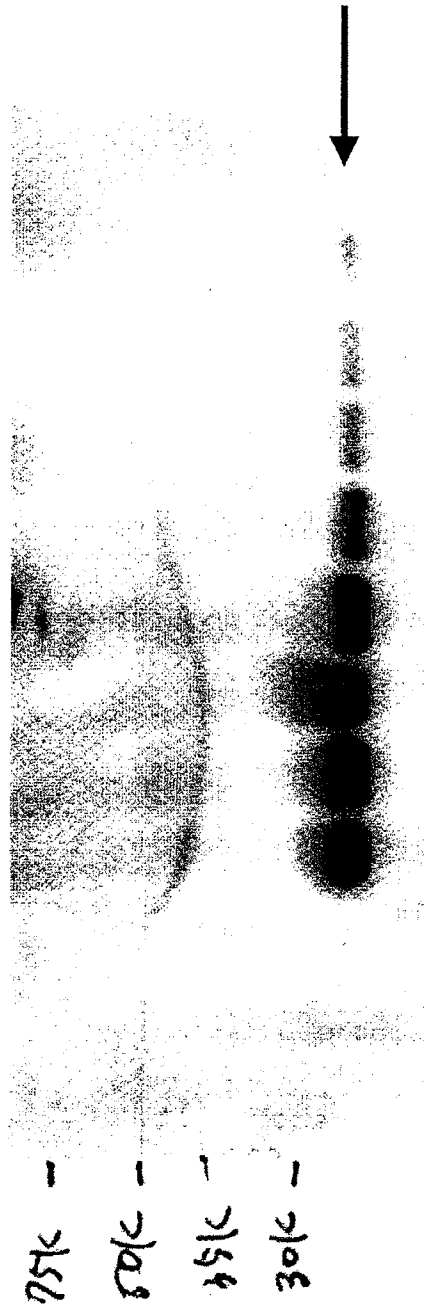
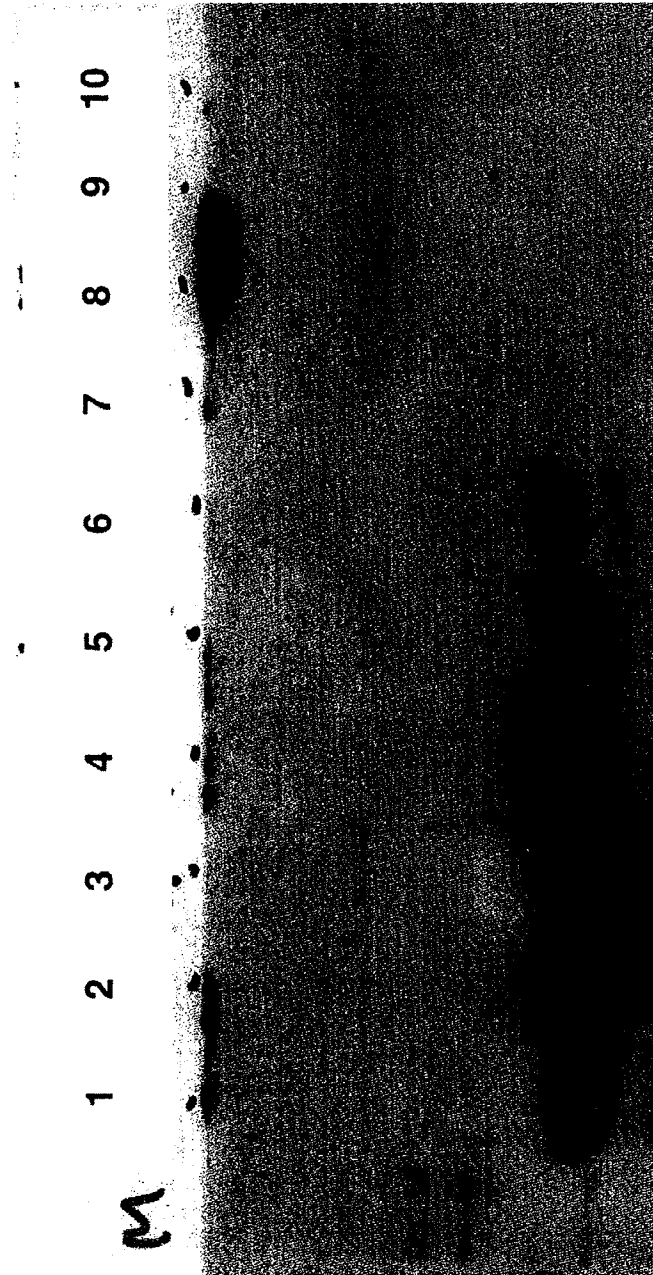


Fig. 19

**Western blot (human urine Smad1)**



Lanes 1-5: diabetic nephropathy

Lane 6: mitochondrial disease in which diabetes is complicated with  
sclerosing, renal proliferative disease

Lanes 7-8: diabetes + nephritis (without sclerosis)

Lanes 9-10: normal